UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5

In the Matter of:	)	**EPA-5-13-113(a)-IL-02**
	)	
Emerald Performance Materials, LLC	)	**Proceeding Under Sections 113(a)(3) and**
Henry, Illinois	)	**114(a)(1) of the Clean Air Act**
	)	**42 U.S.C. §§ 7413(a)(3) and 7414(a)(1)**
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Administrative Consent Order

1. The Director of the Air and Radiation Division, U.S. Environmental Protection Agency (EPA), Region 5, is issuing this Order to Emerald Performance Materials, LLC (Emerald) under Sections 113(a)(3) and 114(a)(1) of the Clean Air Act (CAA or Act), 42 U.S.C. §§ 7413(a)(3) and 7414(a)(1).

Statutory and Regulatory Background

2. The CAA establishes a regulatory scheme designed to protect and enhance the quality of the nation's air so as to promote the public health and welfare and the productive capacity of its population. 42 U.S.C. § 7401(b)(1).
3. Section 112 of the CAA sets forth a national program for the control of Hazardous Air Pollutants (HAPs). 42 U.S.C. § 7412.
4. Congress directed EPA to publish a list of all categories and subcategories of, *inter alia*, major sources of HAPs. 42 U.S.C. § 7412(c).
5. "Major source" was and is defined as any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to

emit considering controls, in the aggregate, 10 tons per year or more of any HAP or 25 tons per year or more of any combination of HAPs. 42 U.S.C. § 7412(a)(1) and 40 C.F.R. § 63.2.

6. Congress directed EPA to promulgate regulations establishing emission standards for each category or subcategory of, *inter alia*, major sources of HAPs listed. 42 U.S.C. § 7412(d)(1). These emission standards must require the maximum degree of reduction in emissions of HAPs that the Administrator, taking into consideration the cost of achieving such emission reduction, and any non-air quality health and environmental impacts and energy requirements, determines is achievable for the new or existing sources in the category or subcategory to which the emission standard applies. 42 U.S.C. § 7412(d)(2).
7. To the extent that it is not feasible to prescribe or enforce an emission standard for control of a HAP, Congress authorized EPA to promulgate "design, equipment, work practice, or operational" standards, which are to be treated as emission standards. 42 U.S.C. §§ 7412(d)(2) and (h)(1).
8. The emission standards promulgated under Section 112 of the 1990 Amendments to the CAA, 42 U.S.C. § 7412, are known as the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Source Categories or maximum achievable control technology (MACT) standards. These emission standards are found in Part 63 of Title 40 of the Code of Federal Regulations.
9. After the effective date of any emission standard, limitation, or regulation promulgated pursuant to Section 112 of the CAA, no person may operate a source in violation of such standard, limitation, or regulation. 42 U.S.C. § 7412(i)(3).
10. On November 10, 2003, EPA promulgated the NESHAP for Miscellaneous Organic Chemical Manufacturing (MON), codified at 40 C.F.R. Part 63, Subpart FFFF.

68 *Fed. Reg.* 63888. The NESHAP for MON establishes emission standards, requirements to demonstrate initial and continuous compliance with emission limits, operating limits, work practice standards, and recordkeeping requirements associated with miscellaneous organic chemical manufacturing. *See* 40 C.F.R. § 63.2430.

11. The NESHAP for MON, at 40 C.F.R. § 63.2445(b), provides that owners and operators of existing sources subject to the MON must comply with the requirements for existing sources no later than May 10, 2008.

12. The NESHAP for MON, at 40 C.F.R. § 63.2435(a), provides that owners and operators are subject to the MON if they operate miscellaneous organic chemical manufacturing process units (MCPU) that are located at, or are part of, a major source of HAP emissions as defined in Section 112(a) of the Clean Air Act.

13. The NESHAP for MON, at 40 C.F.R. § 63.2550, defines "miscellaneous organic chemical manufacturing process" as all equipment which collectively functions to produce a product or isolated intermediate that is "material" described in 40 C.F.R. § 63.2435(b). Process includes any, all or a combination of reaction, recovery, separation, purification, or other activity, operation, manufacture, or treatment which are used to produce a product or isolated intermediate.

14. The MON rule applies to those owners and operators of miscellaneous organic chemical manufacturing process units (MCPU) that are located at, or are part of, a major source of HAPs emissions as defined in Section 112(a) of the Act.

15. The NESHAP for MON, at 40 C.F.R. § 63.2435(b), provides that a MCPU includes equipment necessary to operate a miscellaneous organic chemical manufacturing process that, among other things, processes, uses or generates any of the organic HAPs listed in

Section 112(b) of the Act. A MCPU also includes any assigned storage tanks and transfer racks; equipment in open systems that is used to convey or store water having the same concentration and flow characteristics as wastewater; and components such as pumps, compressors, agitators, pressure relief devices, sampling connection systems, open ended valves or lines, valves, connectors, and instrumentation systems that are used to manufacture any material or family, including but not limited to an organic chemical with an SIC code listed in 40 C.F.R. § 63.2435(b)(1)(i).

16. The NESHAP for MON, at 40 C.F.R. § 63.2550, defines "in organic HAP service" to mean a piece of equipment that either contains or contacts a fluid (liquid or gas) that is at least 5 percent by weight of total organic as determined according to Method 18 of 40 C.F.R. Part 60, Appendix A. *See also* 40 C.F.R. § 63.180(d)(1).

17. Table 6 to Subpart FFFF of Part 63, titled "Requirements for Equipment Leaks" explains that "as required in § 63.2480, you must meet each requirement in the following table that applies to your equipment leaks": (1) For all equipment that is in organic HAP service "a. Comply with the requirements of subpart UU of this Part 63 and the requirements referenced therein, except as specified in § 63.2480(b) and (d); or b. Comply with the requirements of subpart H of this part 63 and the requirements referenced therein, except as specified in § 63.2480(b) and (d); or c. Comply with the requirements of 40 CFR part 65, subpart F and the requirements referenced therein, except as specified in § 63.2480(c) and (d)."

18. Subpart UU, "National Emission Standards for Equipment Leaks – Control Level 2 Standards," located at 40 C.F.R. §§ 63.1019 – 1039, was effective June 29, 1999. *See* 64 Fed. Reg. 34889 (June 29, 1999).

19. 40 C.F.R. § 63.1033(b)(1) states, "Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve..."

20. Under Section 113(a)(3) of the CAA, 42 U.S.C. § 7413(a)(3), the Administrator of EPA may issue an order requiring compliance to any person who has violated or is violating the NESHAP regulations. The Administrator has delegated this authority to the Director of the Air and Radiation Division.

21. The Administrator of EPA may require any person who owns or operates an emission source to make reports; install, use and maintain monitoring equipment; sample emissions; and provide information required by the Administrator under Section 114(a)(1) of the Act, 42 U.S.C. § 7414(a)(1). The Administrator has delegated this authority to the Director of the Air and Radiation Division.

Findings

22. Emerald owns and operates the facility located at 1550 County Road 1450 N., Henry, Illinois 61537(Facility).

23. Emerald manufactures organic chemicals, specifically antioxidants and accelerators to be used in the manufacture of rubber and plastics.

24. Emerald uses acetonitrile which is a HAP listed under Section 112(b) of the Act, 42 U.S.C. §7412(b).

25. Emerald is a "major source" for HAP.

26. Emerald has several MCPUs subject to the MON, at 40 C.F.R. Part 63, Subpart FFFF and the leak detection and repair (LDAR) program:

- Building 711: MBT-Crude and NaMBT & NaSH Production
- Building 711N: NaMBT Purification
- Building 722: 3114 Antioxidant and 3125 Antioxidant
- Building 725: Cure-Rite 18

27. Emerald currently operates its facility under Title V Clean Air Act Permit Program Permit No. 123803AAD issued by the Illinois Environmental Protection Agency on November 24, 2003, as required by Title V of the Federal Clean Air Act of 1990.

28. EPA conducted an inspection at the Emerald facility from July 28-29, 2009.

29. During the July 28-29, 2009 inspection, EPA identified 13 uncapped and/or un-double blocked lines.

30. EPA issued a Finding of Violation (FOV) to Emerald on January 21, 2010.

31. The FOV alleged, among other things, that Emerald violated the following NESHAP requirements:

    a. Emerald failed to comply with 40 C.F.R. § 63.1033(b)(1) which states, "Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve..."

32. In response to the FOV, EPA and Emerald had a Section 113 conference on February 23, 2010. Both during and following this conference, Emerald provided EPA with information and documentation of actions taken by Emerald to correct the issue identified in the FOV. The information and documentation provided by Emerald included purchase orders for caps to be used to cap and/or double block the 13 open ended lines identified during the July 28-29, 2009 inspection.

Compliance Program

33. By no later than three months after the Effective Date of this Order, Emerald shall develop a document that describes, for its Facility: (i) the LDAR program as it applies to equipment at the process units that are subject to LDAR requirements referenced in Subpart FFFF and/or Subpart UU (Process Units) (*e.g.*, applicability of regulations to process units and/or specific

equipment; leak definitions; monitoring frequencies); (ii) a tracking program (*e.g.*, Management of Change) that ensures that new pieces of equipment added to the Process Units for any reason are, as applicable, integrated into the LDAR program and that pieces of equipment that are taken out of service are, as applicable, removed from the LDAR program; (iii) the roles and responsibilities of all employee and contractor personnel assigned to LDAR functions at the Process Units; and (iv) how the number of personnel dedicated to LDAR functions is sufficient to satisfy the requirements of the LDAR program.

34. By no later than 180 days of the Effective Date of this Order, Emerald must conduct a third-party LDAR audit at the Process Units. The audit shall include: (i) reviewing compliance with all applicable LDAR regulations, including all applicable LDAR requirements related to valves, connectors, pumps, agitators, and open-ended lines; (ii) reviewing and/or verifying the completeness and accuracy of the elements in the LDAR document required by Paragraph 33; (iii) reviewing whether any pieces of equipment that are required to be in the LDAR program are not included; and (iv) "comparative monitoring" as described in Paragraph 35.

35. Comparative Monitoring. Comparative monitoring conducted during the LDAR audit required by Paragraph 34 must be undertaken as follows:

    a. Calculating a Comparative Monitoring Audit Leak Percentage. Equipment shall be monitored in order to calculate a leak percentage for the Process Units, broken down by equipment type (*i.e.*, valves, pumps, and agitators). For descriptive purposes under this section, the monitoring that takes place during the audit shall be called "Comparative Monitoring" and the leak percentages derived from the Comparative Monitoring shall be called the "Comparative Monitoring Audit Leak Percentages." In undertaking Comparative Monitoring, Emerald shall not be required to monitor every component in the Process Unit—monitoring approximately 30% of the each equipment type (*i.e.*, valves, pumps, and agitators) in the Process Unit shall be sufficient to satisfy the requirements of this paragraph.

b. Calculating the Historic, Average Leak Percentage from Prior Periodic Monitoring Events. The historic, average leak percentage from prior periodic monitoring events, broken down by equipment type (*i.e.*, valves (excluding pressure relief valves), pumps, and agitators) shall be calculated. The following number of complete monitoring periods immediately preceding the Comparative Monitoring shall be used for this purpose: valves - 4 periods; pumps and agitators - 12 periods.

c. Calculating the Comparative Monitoring Leak Ratio. For each type of equipment, the ratio of the Comparative Monitoring Audit Leak Percentage from Subparagraph 35.a to the historic, average leak percentage from Subparagraph 35.b shall be calculated. This ratio shall be called the "Comparative Monitoring Leak Ratio." If the denominator in this calculation is "zero," it shall be assumed (for purposes of this calculation but not for any other purpose under this Order or under any applicable laws and regulations) that one leaking piece of equipment was found in the Unit through routine monitoring during the applicable period referenced in Subparagraph 35.b.

36. Corrective Action Plan ("CAP")

a. Requirements of a CAP. By no later than the date that is one month after the receipt of the third-party LDAR audit report, Emerald shall develop a preliminary CAP if: (i) the results of the LDAR audit identify any deficiencies; or (ii) a Comparative Monitoring Leak Ratio calculated pursuant to Subparagraph 35.c is 3.0 or higher *and* the Comparative Monitoring Audit Leak Percentage calculated pursuant to Subparagraph 35.a is greater than or equal to 0.5 percent. The preliminary CAP shall describe the actions that Emerald has taken or shall take to address: (i) the deficiencies and/or (ii) the causes of a Comparative Monitoring Leak Ratio that is 3.0 or higher (but only if the Comparative Monitoring Audit Leak Percentage is at or above 0.5 percent). Emerald shall include a schedule by which actions that have not yet been completed will be completed. Emerald shall promptly complete each corrective action item with the goal of completing each action within the date that is three months after receipt of the third-party LDAR audit report. If any action is not completed or not expected to be completed within three months after receipt of the third-party LDAR audit report, Emerald shall explain the reasons and propose a schedule for prompt completion in the final CAP to be submitted under Subparagraph 36.b.

b. Submission of the Final CAP to EPA. By no later than the date that is four months after receipt of the third-party LDAR audit report, Emerald shall submit the final CAP to EPA, together with a certification of the completion of each item of corrective action. If any action is not

completed within three months after receipt of the third-party LDAR audit report, Emerald shall explain the reasons, together with a proposed schedule for prompt completion. Emerald shall submit a supplemental certification of completion by no later than one month after completing all actions.

37. Emerald must send all reports required by this Order to:

Attention: Compliance Tracker (AE-17J)
Air Enforcement and Compliance Assurance Branch
U.S. Environmental Protection Agency, Region 5
77 W. Jackson Boulevard
Chicago, Illinois 60604

38. Commencing in the first full calendar quarter after the Effective Date of this Order, at times that are not announced to the LDAR monitoring technician(s), an LDAR-trained employee or contractor of Emerald, who does not serve on a routine basis as an LDAR monitoring technician at the Facility, shall undertake the following no less than once per calendar quarter for the period of one year in the Process Units:

a. Verify that equipment was monitored at the appropriate frequency under applicable LDAR regulations;

b. Verify that proper documentation and sign-offs have been recorded for all equipment placed on the delay of repair list;

c. Ensure that repairs have been performed in the required periods under applicable LDAR regulations;

d. Review monitoring data and equipment counts (*e.g.*, number of pieces of equipment monitored per day) for feasibility and unusual trends;

e. Verify that proper calibration records and monitoring instrument maintenance information are maintained;

f. Verify that other LDAR program records are maintained as required; and

g. Observe in the field each LDAR monitoring technician who is conducting leak detection monitoring to ensure that monitoring during the quarterly period is being conducted in accordance with Method 21, as required.

Emerald shall promptly correct any deficiencies detected or observed. Emerald shall maintain a log that: (i) records the date and time that the reviews, verifications, and observations required by this Paragraph are undertaken; and (ii) describes the nature and timing of any corrective actions taken.

General Provisions

39. Emerald neither admits nor denies the factual allegations and findings in this Order or the FOV, but Emerald agrees to the terms of this Order and waives any right to contest or appeal the issuance of this Order.
40. This Order does not affect Emerald's responsibility to comply with other federal, state and local laws.
41. This Order does not restrict EPA's authority to enforce Section 112 of the CAA or any other section of the CAA.
42. Nothing in this Order limits the EPA's authority to seek appropriate relief, including penalties, under Section 113 of the CAA, 42 U.S.C. § 7413, for Emerald's violation of Section 112 of the CAA and the NESHAPs at 40 C.F.R. Part 63, Subparts FFFF and UU.
43. Failure to comply with this Order may subject Emerald to penalties of up to $37,500 per day for each violation under Section 113 of the CAA, 42 U.S.C. § 7413, and 40 C.F.R. Part 19.
44. The terms of this Order are binding on Emerald, its assignees and successors. Emerald must give notice of this Order to any successors in interest prior to transferring ownership and must simultaneously verify to EPA, at the above address, that it has given the notice.
45. Emerald may assert a claim of business confidentiality under 40 C.F.R. Part 2, Subpart B, for any portion of the information it submits to EPA. Information subject to a business confidentiality claim is available to the public only to the extent allowed by 40 C.F.R. Part 2,

Subpart B. If Emerald fails to assert a business confidentiality claim, EPA may make all submitted information available, without further notice, to any member of the public who requests it. Emission data provided under Section 114 of the Act, 42 U.S.C. § 7414, is not entitled to confidential treatment under 40 C.F.R. Part 2, Subpart B. "Emission data" is defined at 40 C.F.R. § 2.301.

46. This Order is not subject to the Paperwork Reduction Act, 44 U.S.C. § 3501 *et seq.*, because it seeks collection of information by an agency from specific individuals or entities as part of an administrative action or investigation.

47. EPA may use any information submitted under this Order in an administrative, civil judicial or criminal action.

48. This Order is effective on the date of signature by the Director of the Air and Radiation Division ("Effective Date"). This Order will terminate two years from the Effective Date, provided that Emerald has complied with all terms of the Order throughout its duration.

April 29, 2013
Date

Timothy J. Wessel
President
Emerald Polymer Additives

MAY 9, 2013
Date

George T. Czerniak
Director
Air and Radiation Division

CERTIFICATE OF MAILING

I, Loretta Shaffer, certify that I sent the Administrative Consent Order, EPA-5-13-113(a)-IL-02, by certified mail, return receipt requested, to:

Kellie Marler
Emerald Performance
Materials, LLC
1550 County Road 1450 N
Henry, Illinois 61537

I also certify that I sent a copy of the Administrative Consent Order, EPA-5-13-113(a)-IL-02, by first-class mail to:

Ray Pilapil
Manager
Bureau of Air, Compliance and Enforcement Section
Illinois Environmental Protection Agency
P.O. Box 19506
Springfield, Illinois 62794

Heidi B. Goldstein
Thompson Hine LLP
3900 Key Center
127 Public Square
Cleveland, Ohio 44114

On the 9 day of May 2013.

Loretta Shaffer

Loretta Shafer, Administrative Program Assistant
PAS, AECAB

CERTIFIED MAIL RECEIPT NUMBER: 7009 1680 0000 7667 5673